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EXAMINER

ORLANDO, MICHAEL N

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

The arguments and submitted 03/16/2009 have been fully considered and the 112 rejections are hereby withdrawn. The merits of the claims remain unpatentable over the prior art.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-7 and 9-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giertz et al. (EP 1,153,736), Sjoberg et al. (US 2003/0183334) and Garcia (US 2003/0205012).

Regarding claims 2 and 3, Giertz discloses adding an overlay paper as the surface layer of the laminate to increase wear resistance whereby such is impregnated with melamine-formaldehyde and contains hard particles with average sizes of 1-100um ([0013]). The impregnation of the sheet coating of hard particles makes up the sheet. The sheet is used during the lamination procedure as a cover layer as seen in figure 1 (reference 5 is the impregnated overlay).

Regarding claims 4 and 5, Giertz discloses adding an overlay paper as the surface layer of the laminate to increase wear resistance whereby such is impregnated with melamine-formaldehyde and contains hard particles with average sizes of 1-100um ([0013]). Giertz does not explicitly teach the particle ranges of 50nm-150um or 50nm to 30um.

Clearly the disclosed range of 1-100um substantially overlaps the claimed ranges and the courts have held that in cases where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). It would have therefore been obvious to utilize the claimed ranges.

Regarding claim 6, suitable base layers of used in the invention of Giertz include fiber board or particle board ([0008]).

Regarding claim 7, the base layer sheets of Giertz are impregnated with phenol-formaldehyde resin ([0016]).

Regarding claims 9-10, Giertz discloses a suitable décor pattern whereby there is rows of bars and those bars are offset in the longitudinal direction. Sections of bars can either be parallel to the longitudinal direction or perpendicular (i.e. latitudinal) ([0011]).

Regarding claims 11-12, as indicated above Giertz discloses a suitable décor pattern whereby there is rows of bars and those bars are offset in the longitudinal direction. Sections of bars can either be parallel to the longitudinal direction or perpendicular (i.e. latitudinal) ([0011]). Giertz does not explicitly state that such results in rectangle and/or square panels; however, it is clear that perpendicularly related bars cross at right angles (perpendicular indicates such) and given such the repeating pattern would produce a meshed design with varying rectangles and/or squares based upon the spacing of the alternate (i.e. longitudinal and latitudinal) bars. Modifying the spacing to ensure such a specific type of rectangle (i.e. a square) is merely a design choice and within the purview of an ordinary skilled artisan. Also note that courts have held that features relating to ornamentation cannot be relied upon to patentably distinguish the claimed invention from the prior art (In re Seid, 161 F.2d 229, 73 USPQ 431, CCPA 1947).

Regarding claims 13 and 14, the décor paper of Giertz have positioning means such as color dots holed and indentations ([0010]).

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Regarding claim 15-20, Giertz discloses a process for the manufacture of a decorative board with thermosetting resin impregnated layers and a décor paper in the form of a sheet. The décor paper is placed on a surface of a base layer and bonded thereto by pressing under heat and pressure. The pressing utilizes a matrix (press foil) with a surface structure coinciding with the intended décor pattern and such is accurately placed on top of the decor paper before pressing and separated after pressing to obtain the desired decor surface (abstract). The matrix is further defined as either a plate or a press foil ([0009]). Giertz discloses that the structure foil web can be cut into sheets (i.e. multiple press foils) and positioned on the décor web. The Jepson claim language indicates the differences between the prior are not taken to be the board itself but rather the production methods, particularly the use of automated tools such as cameras and computers.

Giertz, while teaching the general board, fails to disclose such automated alignment techniques.

Sjoberg, drawn also to a process for the manufacture of a decorative laminate, discloses the use of vision systems and sensors such as cameras for use in the lamination process ([0019]). It would have been obvious to one having ordinary skill in the art at the time of the invention to have utilized the vision systems and sensors of Sjoberg with the invention of Giertz because such was known for allowing the identification of certain features for proper positioning and the subsequent result of achieving an accurate match between the decor and surface structure ([0019]). The production process (in regards to the arrangement of the laminate) itself is disclosed by

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Giertz and in view of Sjoberg and the automation of the alignment and execution of the process steps would have been an obvious modification. Further tailoring and/or providing alternative automated means to satisfy the steps of the process that is already disclosed by Giertz/Sjoberg is a matter of obviousness since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192. Sjoberg also appreciates the inclusion of various cutting, aligning and joining steps that allow the ability to control the final design ([0024], [0028]).

Since Sjoberg discloses the use of cutting, aligning and joining features to produce desired final designs of a decorative board it would have been an obvious matter to cut, align and join components so as to arrive at the desired design. Further evidencing the assertion of obviousness is the teachings of Garcia whereby it is disclosed that in the art of decorated laminates useful in flooring (the same general field of endeavor as both Sjoberg and Giertz) it was known to create a decorative substrate, cut the substrate into smaller pieces and accurately align them via the use of cutting, shaping and milling tools followed by the addition of alignment features for joining the individual subsets (i.e. panels) ([0059]). It would have been obvious to utilize the method of Garcia with the teachings of Giertz and Sjoberg as disclosed above because Garcia is from the same field of endeavor and signifies the knowledge in the art prior to the applicant's invention. An ordinary skilled artisan would have also been motivated to utilize the teachings of Garcia because the smaller panels would be predictably easier to package, store and ship so that they may be assembled when and where assembly is

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desired. Also, as to the specific use of two cameras with one detecting structure and the other color it is noted that Sjoberg recognizes the use of vision systems that can be used to identify **structure and decor** (color being a subset of decor) ([0010]) and combining multiple imaging systems as set forth by Sjoberg would have been obvious in order to increase the precision of the alignment. Sjoberg also recognizes the importance of accurate matches (i.e. alignments) between the décor and structure surfaces ([0019]) so therefore it would have been obvious to visually inspect the laminate alignments to assure that the desired level of accuracy is achieved and the use of a computer for performing said task is an obvious matter since it has been held that merely applying a general mechanical or automatic means (computer inspection) to replace manual activity (visual inspection) which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192. Also, it is noted that that the courts have established the use of a known technique to improve a similar device in the same way is an obvious matter (KSR, 550 U.S. at ___, 82 USPQ2d at 1391). In this case it is a known technique to use cameras and sensors to control the alignment and production process of decorative laminates and the present claims merely seem to differ in that the process is expanded to other aspects of the production (i.e. machining). Absent a showing of unexpected results the mere application of a technique known in the art of decorative laminate production (cameras and sensors) utilized for the same purpose (alignment and precision) in that same art is taken to be prima facie case of obviousness. There is also reasonable expectation of success since such is known to be useful tool already in the field of decorative laminate production.

Regarding claims 21-23, both Sjoberg ([0022], [0024]) and Garcia ([0048, [0059]) disclose cutting and milling techniques for controlling board dimensions. It would have been therefore obvious to use such features that are well known in the art of decorative laminate production for the purpose of ensuring flush end alignment and desired size.

Regarding claim 24, Giertz utilizes a structured press foil during the formation of the laminate to add surface structure (i.e. emboss) to the laminate (abstract).

Regarding claims 25 and 26, as set forth above the use of cameras for increasing the alignment of such decorative laminates is known through the teachings of Sjoberg. The use of a known technique (camera driven alignment) to improve a similar device (merely another layer of the laminate) in the same way (increase alignment) is an obvious modification. The courts have established the use of a known technique to improve a similar device in the same way is an obvious matter (KSR, 550 U.S. at ___, 82 USPQ2d at 1391). The nature of the movements (latitudinal, longitudinal, and vertical) is encompassed by the teachings of Sjoberg. Clearly, Sjoberg appreciates utilizing a camera for aligning the layers. It is common sense that alignment will be done by moving the layers in which ever direction they are off centered (i.e. if longitudinally off center shift them longitudinally, etc.).

Regarding claim 27, as set forth above the laminate arrangement is well known. Also, as set forth above the use of alignment features and alignment cameras for increasing alignment precision is known. Also, as set forth above the use of cutting and milling is known. The introduction of a computer for controlling the process rather than a

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person has been established by the courts as an obvious modification (In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)).

Response to Arguments

4. Applicant's arguments filed 03/16/2009 have been fully considered but they are not persuasive.

The applicant contends that the combination does not suggest the use of the present invention.

First it is noted that as set forth by the Jepson claim language that Giertz teaches the present laminate arrangement. The difference between Giertz and the prior art lies in the alignment means. The present invention utilizes an automated alignment system with cameras and sensors for precise alignment. While Giertz does specify some automated techniques it was the examiner's assertion that Sjoberg does so more effectively and also provides increased evidence as to the knowledge of such a feature. Sjoberg recognizes two important alignment variable, structure and decor. Therefore the general knowledge in the art for aligning such structures via both visual (décor) and tactile (structure) markers is a known feature. Delineating the steps so that one camera performs one function and a second performs the other is merely a separation of working parts whereby a single step is separated into two (*Nerwin v. Erlicnrnan*, 168 USPQ 177, 179). Absent unexpected results the merely separation of the two features is not taken to be an inventive step since cameras were already known to be used for detecting and aligning decorative laminates based on **both** decor and structure

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(Sjoberg, [0019]). Sjoberg specifically sets forth that such allows for proper alignment and precise production of such decorative laminates ([0019]). The present claims merely seem to differ in that additional features (such as the machining tool is guided) and a computer is used. First as to the computer, with the technology age the use of computers instead of manual activity is an obvious as well understood substitution across almost all arts. As stated above such a modification has been held by the courts to be obvious (In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)). As to the controlling of the machinery the courts have established the use of a known technique to improve a similar device in the same way is an obvious matter (KSR, 550 U.S. at ___, 82 USPQ2d at 1391). In this case it is a known technique to use cameras and sensors to control the alignment and production process of decorative laminates and the present claims merely seem to differ in that the process is expanded to other aspects of the production (i.e. machining). Absent a showing of unexpected results the mere application of a technique known in the art of decorative laminate production utilized for the same purpose (alignment and precision) in that same art is taken to be prima facie case of obviousness.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (US 2004/0030438), (US 2004/0139678) and (US 6,298,284) all support the rejection above. The references provide further evidence to support the

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position that utilizing automated alignment means such as camera and sensors was a well known alignment substitution for manual alignment.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL N. ORLANDO whose telephone number is (571)270-5038. The examiner can normally be reached on Monday-Thursday, 7:30am-4:30pm, alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MO

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791